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PHOTOGRAPHIC INTERPRETATION REPORT



KOVYLKINO SA-5 EQUIPMENT
CHECKOUT INSTALLATION
USSR

MARCH 1970

COPY **118**

5 PAGES

PIR-012/70

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GROUP 1: EXCLUDED FROM
AUTOMATIC DOWNGRADING
AND DECLASSIFICATION

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INSTALLATION OR ACTIVITY NAME

Kovylkino SA-5 Equipment Checkout Installation

COUNTRY

UR

UTM COORDINATES

NA

GEOGRAPHIC COORDINATES

53-59-05N 043-49-50E

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MAP REFERENCE

ACIC. USATC, Series 200, Sheet M0166-13HL, 3d ed, Oct 67, scale 1:200,000
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NA

143251 NA

ABSTRACT

Checkout of the SQUARE PAIR engagement radar and the SA-5 missile launcher is performed at Kovylkino SA-5 Equipment Checkout Installation. The function of this previously unidentified installation had remained unknown until recent large-scale photography revealed the presence of SA-5 system components. This installation was first observed under construction in July 1963 and contains an operations area, a support and housing area, a rail transloading area, and a small motor pool.

This report includes a description of facilities, a table of construction chronology, and two annotated photographs, one of which itemizes the equipment observed in the operations area

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INTRODUCTION

provided the first large-scale stereo coverage of Kovylkino unidentified installation¹ and permits its identification and targeting as an SA-5 equipment checkout installation. Presently, it is the only known SA-5 equipment checkout installation of this type in the USSR.

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Kovylkino SA-5 Equipment Checkout Installation (Figure 1) is 4.5 nautical miles (nm) southwest of Kovylkino and approximately 140 nm south of Gorky, USSR. The installation consists of an operations area, a support and housing area, a rail transloading area, and a motor pool. Some of these facilities were first observed under construction on photography

A second rail transloading area, a POL storage area, and a barracks area were observed in this same area on photography. Their earlier appearance suggests that they were not originally intended to support the SA-5 equipment checkout installation. However, they may now be incorporated as part of the installation's support facilities.

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Table 1. Chronology of Construction Activity at Kovylkino SA-5 Equipment Checkout Installation

Activity	
Checkout installation was not present.	
Aprons for areas A2, A3, B2, and B3 are observed under construction. Construction activity is observed in the housing and support facility.	
Areas A2, A3, B2, and B3 are complete. The rail transloading area is observed under construction.	
Equipment is first observed in areas A2, A3, B2, and B3.	
Areas A1 and B1 are first observed under construction.	
Support and housing area is probably complete.	
A motor pool is observed under construction.	
Areas A1 and B1 are complete.	
Equipment is first observed in areas A1 and B1. The motor pool is probably complete.	
Equipment storage apron is observed in area A.	

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*There have been no significant construction changes at the installation since Jun 66.

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BASIC DESCRIPTION**Operations Area**

The operations area serves as an electronics checkout area for several integrated components of the SA-5 surface-to-air missile system. Specifically, the SQUARE PAIR engagement radar is checked out in conjunction with a group of SA-5 missile launchers. Similar operations involving SA-2 and SA-3 equipment probably are performed in the SAM marshalling area, Kapustin Yar Missile Test Center.

The operations area (Figure 2) is triple secured and comprises approximately 212.4 hectares (525 acres). It contains two long parallel east-northeast/west-southwest concrete aprons, designated areas A and B.

Area A

Operations area A is utilized to check out the SQUARE PAIR radar. It contains a concrete apron, [REDACTED]. An equipment storage apron is attached to the northeastern side of the large apron. An administration building, a drive-in storage building, and seven additional support buildings are positioned along the northern side of the large apron.

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The large concrete apron is divided into three functional areas (A1, A2, and A3). Each of the three areas contains several SQUARE PAIR radars, guidance control vans, and generators. The SQUARE PAIR radars in each group are cable connected to a central cable conduit which extends to a group of SA-5 launchers in operations area B. Areas A1, A2, and A3 are served by three radar calibration towers located in the eastern portion of the operations area. A fourth radar calibration tower is located immediately west of operations area B.

Additionally, 49 SA-5 launchers are parked on the equipment storage apron north of area A1 and numerous vehicles and equipment are observed immediately north of area A2.

Area B

Operations area B serves as an SA-5 launcher checkout area. It is positioned [REDACTED] southeast of area A. This distance corresponds to the distance separating the launch area from the tracking and guidance facility at a typical deployed SA-5 launch complex.

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Operations area B consists of a concrete apron, [REDACTED]. Three smaller aprons, approximately 50 by 43 meters (164 by 141 feet), are attached to the southern side of the large apron. Operations area B is also divided into three functional areas (B1, B2, and B3). Each of the three areas contains 30 SA-5 missile launchers. Area B2 contains one additional SA-5 launcher. Each group of 30 launchers is subdivided into five groups of six launchers. In most instances, a guidance control van and at least one generator are associated with each group. Each group is probably cable connected to the central cable conduit which originates from a corresponding group of SQUARE PAIR radars in operations area A.

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A gable-roofed building and two unidentified structures are south of areas B1, B2, and B3. Additionally, two buildings and an unidentified structure are located along the security fence, immediately east of area B.

Support Facilities

The installation's support elements include a support and housing area, a rail transloading area, and a small motor pool. The support and housing area is approximately 1,524 meters (5,000 feet) northwest of the operations area. It includes four multistory barracks, a T-shaped administration building, and nine additional support buildings. A rail transloading area is [REDACTED] southwest of the support and housing area. It includes five terminal rail spurs and a warehouse. A large overhead crane straddles the two easternmost rail spurs. A small motor pool is approximately 762 meters (2,500 feet) west of the support and housing area. It contains a vehicle storage building and four support buildings.

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REFERENCES

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MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet M0166-13HL, 3d ed, Oct 67, scale 1:200,000 (SECRET/

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DOCUMENTS

1. NPIC. *Kovylino Unidentified Installation, USSR*, Nov 68 (TOP SECRET RUFF)

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REQUIREMENT

NPIC Project 143251NA

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